Access DB# 128942

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: M. A. WALICKA Examiner #: 78201 Date: July 30, 2004
Art Unit: 1652 Phone Number 30-0944 Serial Number: 09/753,149
Mail Box and Bldg/Room Location: REM 3/A64 Results Format Preferred (circle): PAPER DISK E-MAIL
3C70

If more than one search is submitted, please prioritize searches in order of need. ME'

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Design and use of advanced zinc chelating ele

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search the enclosed structure

Thank you in advance. M Walicka

Please RUSH

Approved Zelma

RECEIVED
JUL 30 2004
OIPE/IAP

Arnold

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: Arnold	NA Sequence (#)	STN
Searcher Phone #: 2-2532	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up: 7/30/04	Bibliographic	Dr.Link
Date Completed: 7/30/04	Litigation	Lexis/Nexis
Searcher Prep & Review Time:	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time:	Other	Other (specify)

see p. 7 of packet 1

Sequence Family Search of Proteins (/sqsfp)

In the sequence family search, each amino acid in the query has to match either the exact amino acid or a family member equivalent, as shown in the Family Equivalence Table below. The Family Equivalence Table is applied only to each common amino acid in the sequence. Specific uncommon amino acids may be included in the sequence; however, family equivalents only exist for the common amino acids. An amino acid family is based on a conservative substitution of amino acids sharing a similar chemical property. Each common amino acid in the query is converted to its family class members in a search. A match occurs on a query sequence if each amino acid is exactly matched or any of its family members are encountered. For example, the Hydrophobic-Aromatic family consists of the common amino acids F, W, and Y. If the amino acid F is specified within a sequence exact family search, it will match on amino acids F, W, or Y.

FAMILY EQUIVALENCE TABLE

Family Class Name	Family Class Members
Neutral-Weakly Hydrophobic	Ala (A), Gly (G), Pro (P), Ser (S), Thr (T)
Hydrophilic-Acid Amine	Asn (N), Asp (D), Gln (Q), Glu (E)
Hydrophilic-Basic	Arg (R), His (H), Lys (K)
Hydrophobic	Ile (I), Met (M), Leu (L), Val (V)
Hydrophobic-Aromatic	Phe (F), Trp (W), Tyr (Y)
Crosslinking	Cys (C)

=> fil lreg

FILE 'LREGISTRY' ENTERED AT 15:57:01 ON 30 JUL 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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LREGISTRY IS A STATIC LEARNING FILE

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:57:03 ON 30 JUL 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 28 JUL 2004 HIGHEST RN 718597-29-6
DICTIONARY FILE UPDATES: 28 JUL 2004 HIGHEST RN 718597-29-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> fil marpat

FILE 'MARPAT' ENTERED AT 15:57:06 ON 30 JUL 2004
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FILE CONTENT: 1988-PRESENT (VOL 141 ISS 04)(20040723/ED)

MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6747069 08 JUN 2004
DE 10351214 19 MAY 2004
EP 1424340 02 JUN 2004
JP 2004161736 10 JUN 2004
WO 2004052350 24 JUN 2004

Structure search limits have been raised. See HELP SLIMIT for the new,
higher limits.

=> fil beilstein

FILE 'BEILSTEIN' ENTERED AT 15:57:11 ON 30 JUL 2004
COPYRIGHT (c) 2004 Beilstein-Institut zur Foerderung der Chemischen Wissenschaften
licensed to Beilstein GmbH and MDL Information Systems GmbH

FILE RELOADED ON OCTOBER 20, 2002
FILE LAST UPDATED ON JUNE 15, 2004

FILE COVERS 1771 TO 2003.
*** FILE CONTAINS 8,997,153 SUBSTANCES ***

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For mo detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

```
**********************************************************************
* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST.                *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE   *
* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE          *
* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS.                        *
* FOR PRICE INFORMATION SEE HELP COST                                *
**********************************************************************
```

NEW

* **PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.**
* **NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.**

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**********************************************************************
```

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 15:57:18 ON 30 JUL 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 30 Jul 2004 VOL 141 ISS 6
FILE LAST UPDATED: 29 Jul 2004 (20040729/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> fil uspatfull

FILE 'USPATFULL' ENTERED AT 15:57:22 ON 30 JUL 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 29 Jul 2004 (20040729/PD)
FILE LAST UPDATED: 29 Jul 2004 (20040729/ED)
HIGHEST GRANTED PATENT NUMBER: US6769133
HIGHEST APPLICATION PUBLICATION NUMBER: US2004148672
CA INDEXING IS CURRENT THROUGH 29 Jul 2004 (20040729/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 29 Jul 2004 (20040729/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2004

>>>  USPAT2 is now available.  USPATFULL contains full text of the      <<<
>>>  original, i.e., the earliest published granted patents or          <<<
>>>  applications.  USPAT2 contains full text of the latest US          <<<
>>>  publications, starting in 2001, for the inventions covered in      <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original      <<<
>>>  published document but also a list of any subsequent               <<<
>>>  publications.  The publication number, patent kind code, and       <<<
>>>  publication date for all the US publications for an invention      <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL    <<<
>>>  records and may be searched in standard search fields, e.g., /PN,  <<<
>>>  /PK, etc.                                                          <<<

>>>  USPATFULL and USPAT2 can be accessed and searched together         <<<
>>>  through the new cluster USPATALL.  Type FILE USPATALL to           <<<
>>>  enter this cluster.                                                <<<
>>>                                                                     <<<
>>>  Use USPATALL when searching terms such as patent assignees,        <<<
>>>  classifications, or claims, that may potentially change from      <<<
>>>  the earliest to the latest publication.                            <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> fil toxcenter

FILE 'TOXCENTER' ENTERED AT 15:57:29 ON 30 JUL 2004
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FILE COVERS 1907 TO 27 Jul 2004 (20040727/ED)

This file contains CAS Registry Numbers for easy and accurate substance
identification.

TOXCENTER has been enhanced with new files segments and search fields.
See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2004 vocabulary.  See http://www.nlm.nih.gov/mesh/ and
http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a
description of changes.

=> FIL STNGUIDE

FILE 'STNGUIDE' ENTERED AT 15:57:33 ON 30 JUL 2004
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 23, 2004 (20040723/UP).

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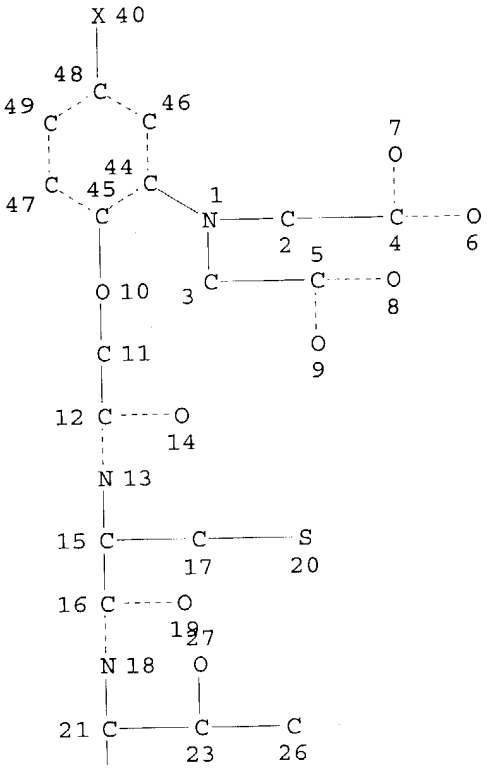
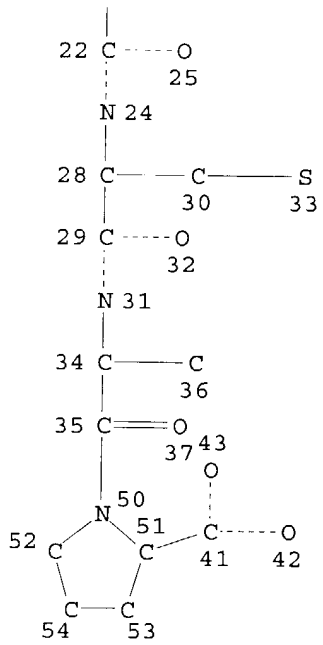
L8 STR



Page 1-A



Page 2-A
NODE ATTRIBUTES:
NSPEC IS RC AT 26
NSPEC IS RC AT 36
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

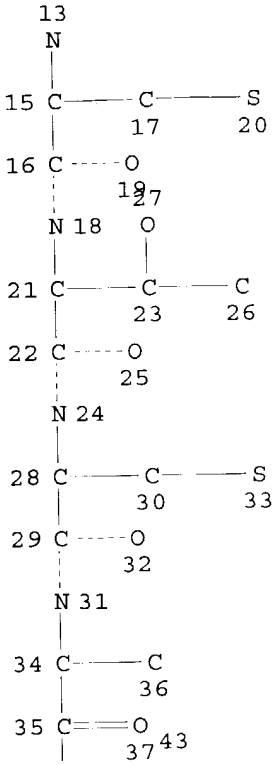
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE
L10 1 SEA FILE=REGISTRY SSS FUL L8

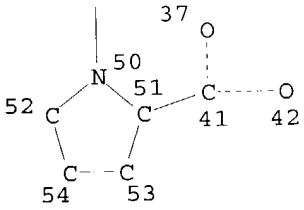
=> d que nos l14
L8 STR
L14 0 SEA FILE=BEILSTEIN SSS FUL L8

=> d que nos l16
L8 STR
L16 0 SEA FILE=MARPAT SSS FUL L8

=> d que l24
L22 STR



Page 1-A



Page 2-A
NODE ATTRIBUTES:
NSPEC IS RC AT 26
NSPEC IS RC AT 36
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE
L24 6 SEA FILE=REGISTRY SSS FUL L22

=> d que l20
L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2000-753139/AP,PRN
L2 TRANSFER PLU=ON L1 1- RN : 30 TERMS
L3 30 SEA FILE=REGISTRY ABB=ON PLU=ON L2
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND C32H45FN6O13S2/MF

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L17      392601 SEA FILE=REGISTRY ABB=ON  PLU=ON  MOD?/NTE
L18         125 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTCVP^/SQSFP
L19           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND L18
L20           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 NOT L4


=> d que nos l30
L17      392601 SEA FILE=REGISTRY ABB=ON  PLU=ON  MOD?/NTE
L18         125 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTCVP^/SQSFP
L19           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND L18
L22             STR
L24           6 SEA FILE=REGISTRY SSS FUL L22
L28           7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 OR L24
L30             ANALYZE  PLU=ON  L28 1- LC :       4 TERMS


=> d que nos l28
L17      392601 SEA FILE=REGISTRY ABB=ON  PLU=ON  MOD?/NTE
L18         125 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTCVP^/SQSFP
L19           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND L18
L22             STR
L24           6 SEA FILE=REGISTRY SSS FUL L22
L28           7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 OR L24


=> d l30
L30          ANALYZE L28 1- LC :       4 TERMS

TERM #    # OCC   # DOC   % DOC LC
------ -------- ------ ------ ---------------
     1        7      7 100.00 CA
     2        7      7 100.00 CAPLUS
     3        3      3  42.86 USPATFULL
     4        1      1  14.29 TOXCENTER
*********  END OF L30***


=> d que l31
L17      392601 SEA FILE=REGISTRY ABB=ON  PLU=ON  MOD?/NTE
L18         125 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTCVP^/SQSFP
L19           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND L18
L22             STR
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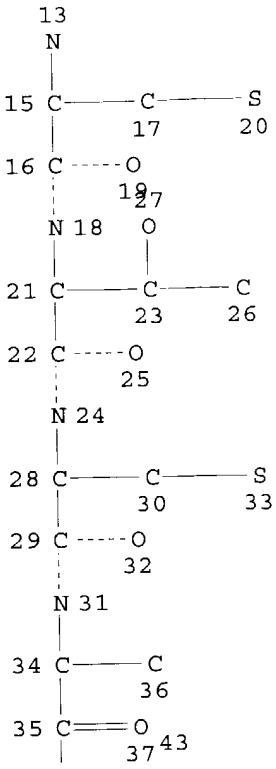
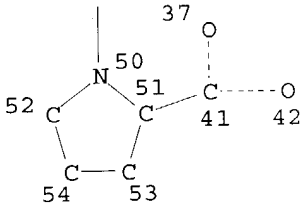


Page 1-A



Page 2-A
NODE ATTRIBUTES:
NSPEC IS RC AT 26
NSPEC IS RC AT 36
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE
L24 6 SEA FILE=REGISTRY SSS FUL L22
L28 7 SEA FILE=REGISTRY ABB=ON PLU=ON L19 OR L24
L31 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L28

=> d que nos l32
L17 392601 SEA FILE=REGISTRY ABB=ON PLU=ON MOD?/NTE
L18 125 SEA FILE=REGISTRY ABB=ON PLU=ON CTCVP^/SQSFP

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L19             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND L18
L22               STR
L24             6 SEA FILE=REGISTRY SSS FUL L22
L28             7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 OR L24
L32             2 SEA FILE=USPATFULL ABB=ON  PLU=ON  L28


=> d que nos l33
L17        392601 SEA FILE=REGISTRY ABB=ON  PLU=ON  MOD?/NTE
L18           125 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTCVP^/SQSFP
L19             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L17 AND L18
L22               STR
L24             6 SEA FILE=REGISTRY SSS FUL L22
L28             7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 OR L24
L33             1 SEA FILE=TOXCENTER ABB=ON  PLU=ON  L28


=> dup rem l31 l32 l33

FILE 'HCAPLUS' ENTERED AT 15:59:14 ON 30 JUL 2004
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FILE 'USPATFULL' ENTERED AT 15:59:14 ON 30 JUL 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'TOXCENTER' ENTERED AT 15:59:14 ON 30 JUL 2004
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PROCESSING COMPLETED FOR L31
PROCESSING COMPLETED FOR L32
PROCESSING COMPLETED FOR L33
L34             5 DUP REM L31 L32 L33 (1 DUPLICATE REMOVED)
                  ANSWERS '1-3' FROM FILE HCAPLUS
                  ANSWERS '4-5' FROM FILE USPATFULL

=> d ibib ed hitstr abs

L34  ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2002:89868  HCAPLUS
DOCUMENT NUMBER:          136:156415
TITLE:                    Polymeric conjugates of antitumor agents
INVENTOR(S):              Suarato, Antonino; Angelucci, Francesco; Caruso,
                          Michele; Scolaro, Alessandra; Volpi, Daniele; Zamai,
                          Moreno
PATENT ASSIGNEE(S):       Pharmacia & Upjohn S.p.A., Italy
SOURCE:                   PCT Int. Appl., 35 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

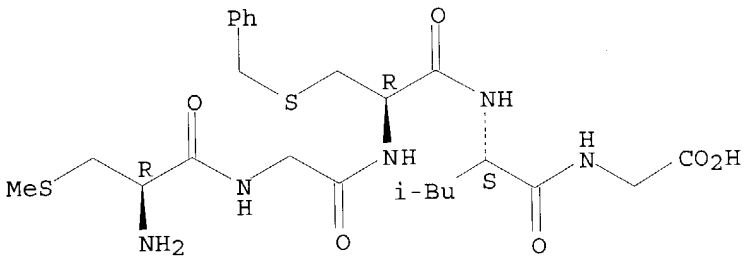
     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
     WO 2002007770      A2   20020131      WO 2001-EP7883   20010709
     WO 2002007770      A3   20020516
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
```

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001089635	A5	20020205	AU 2001-89635		20010709
EP 1317287	A2	20030611	EP 2001-969356		20010709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004504358	T2	20040212	JP 2002-513503		20010709
US 2003195152	A1	20031016	US 2003-333619		20030410
PRIORITY APPLN. INFO.:			GB 2000-18240	A	20000725
			WO 2001-EP7883	W	20010709

OTHER SOURCE(S): MARPAT 136:156415
ED Entered STN: 01 Feb 2002
IT **393780-78-4D**, polymeric conjugates
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric conjugates of antitumor agents)
RN 393780-78-4 HCAPLUS
CN Glycine, S-methyl-L-cysteinylglycyl-S-(phenylmethyl)-L-cysteinyl-L-leucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB Water soluble polymeric conjugates of antitumor agents containing peptides that selectively are cleaved at the tumor site mainly by the action of the matrix metalloproteinases, e.g., gelatinase. The conjugates have enhanced antitumor activity and decreased toxicity with respect to the free drug. A process for their preparation, useful intermediates and pharmaceutical compns. containing them are also described. Thus, a camptothecin derivative containing peptides was prepared and allowed to react with N-(2-hydroxypropyl)methacrylamide and N-(2-hydroxypropyl)methacryloylglycinamide. The conjugate prepared was nontoxic at all tested doses and gave 98% tumor inhibition against human colon carcinoma at 20 mg/kg in mice.

=> d ibib ed hitstr abs 2-
YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):y

L34 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:521516 HCAPLUS
DOCUMENT NUMBER: 137:103919
TITLE: Design and use of advanced zinc-chelating peptide-chelator conjugates to regulate matrix metalloproteinases, and therapeutic use
INVENTOR(S): Quirk, Stephen; Tyrrell, David John
PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA

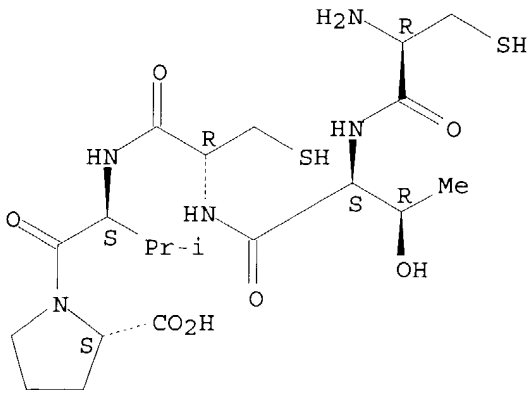
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053173	A2	20020711	WO 2001-US49276	20011221
WO 2002053173	A3	20030410		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003073808	A1	20030417	US 2000-753139	20001229
EP 1348024	A2	20031001	EP 2001-991359	20011221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-753139 A 20001229
WO 2001-US49276 W 20011221

ED Entered STN: 12 Jul 2002
IT **441283-28-9**
RL: PRP (Properties)
(unclaimed sequence; design and use of advanced zinc-chelating peptide-chelator conjugates to regulate matrix metalloproteinases, and therapeutic use)
RN 441283-28-9 HCAPLUS
CN L-Proline, L-cysteinyl-L-threonyl-L-cysteinyl-L-valyl- (9CI) (CA INDEX NAME)

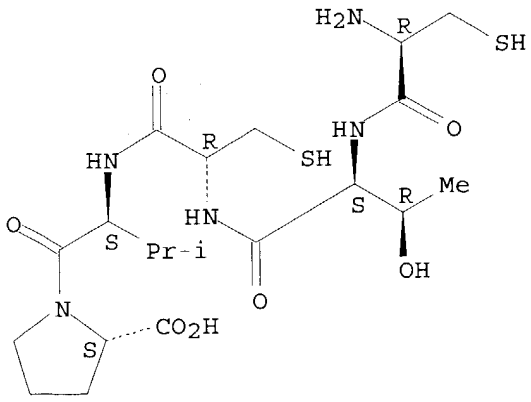
Absolute stereochemistry.



IT **441283-28-9D**, chelating agent conjugates
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(zinc-chelating peptide-chelator conjugates for matrix metalloproteinase regulation, and therapeutic use)
RN 441283-28-9 HCAPLUS

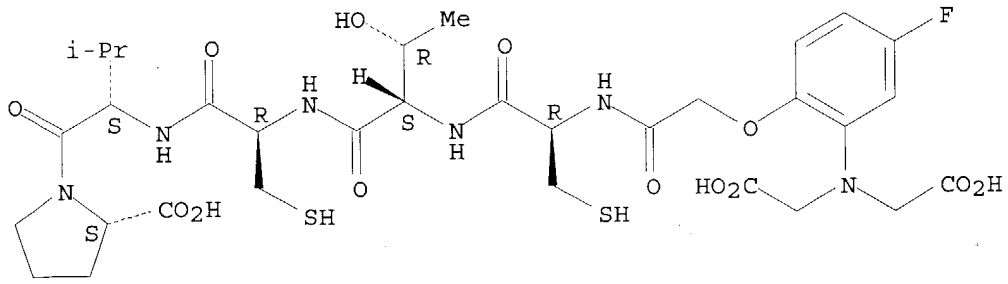
CN L-Proline, L-cysteinyl-L-threonyl-L-cysteinyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **441283-34-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(zinc-chelating peptide-chelator conjugates for matrix metalloproteinase regulation, and therapeutic use)
RN 441283-34-7 HCAPLUS
CN L-Proline, N-[[2-[bis(carboxymethyl)amino]-4-fluorophenoxy]acetyl]-L-cysteinyl-L-threonyl-L-cysteinyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB The invention discloses MMP regulators that comprise synthetic peptides having amino acid sequences structurally similar to those of MMP binding region of TIMPs, coupled to zinc chelators. The invention also discloses methods for making these MMP regulators and their use for the treatment of chronic and acute wounds and for the treatment of angiogenesis-associated diseases.

L34 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:409264 HCAPLUS
DOCUMENT NUMBER: 136:198460
TITLE: Anti-HBs after hepatitis B immunization with plasma-derived and recombinant DNA-derived vaccines: binding to mutant HBsAg
AUTHOR(S): Heijtink, R. A.; van Bergen, P.; van Roosmalen, M. H.; Sunnen, C. M. G.; Paulij, W. P.; Schalm, S. W.;

Osterhaus, A. D. M. E.
CORPORATE SOURCE: Department of Virology, Erasmus University Rotterdam, Rotterdam, 3000 DR, Neth.
SOURCE: Vaccine (2001), 19(27), 3671-3680
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 Jun 2001
IT **400786-44-9 400786-45-0 400786-46-1 400786-52-9**
RL: BSU (Biological study, unclassified); BIOL (Biological study) (anti-hepatitis B virus antibody binding to mutant HBsAg peptides)
RN 400786-44-9 HCAPLUS
CN L-Proline, L-prolyl-L-alanyl-L-glutaminylglycyl-L-asparaginyl-L-seryl-L-methionyl-L-phenylalanyl-L-prolyl-L-seryl-L-cysteinyl-L-cysteinyl-L-cysteinyl-L-threonyl-L-lysyl-L-prolyl-L-threonyl-L-α-aspartyl-L-arginyl-L-asparaginyl-L-cysteinyl-L-threonyl-L-cysteinyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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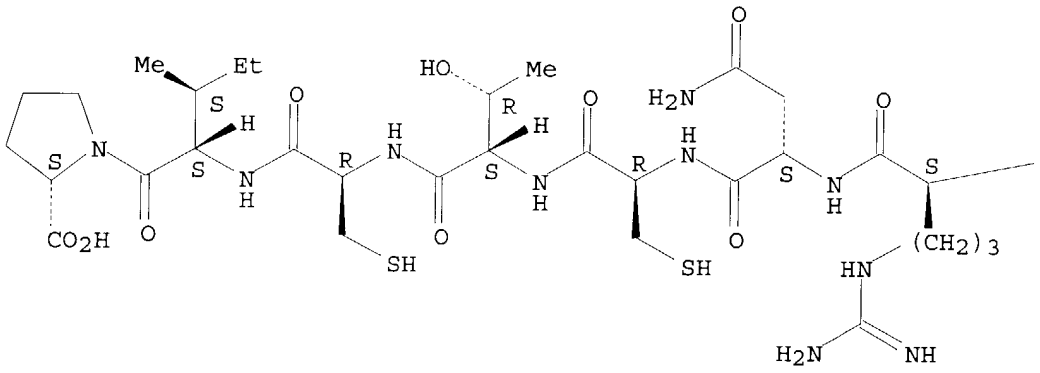

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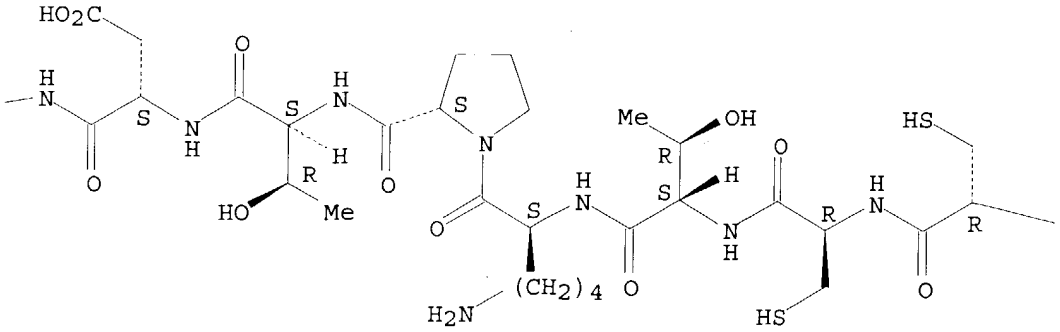

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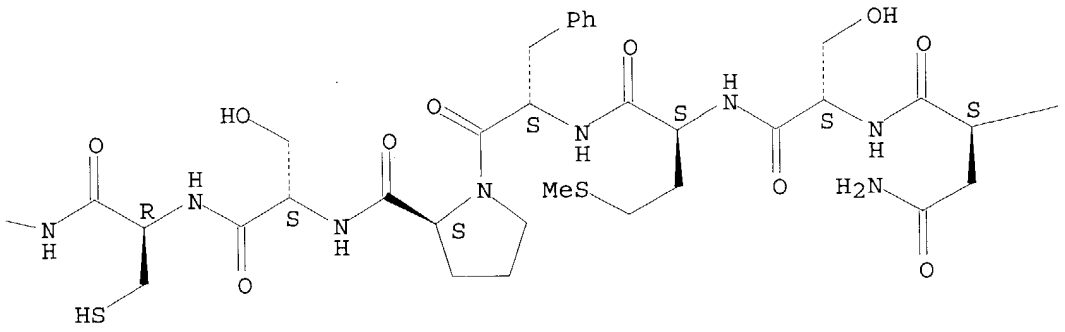

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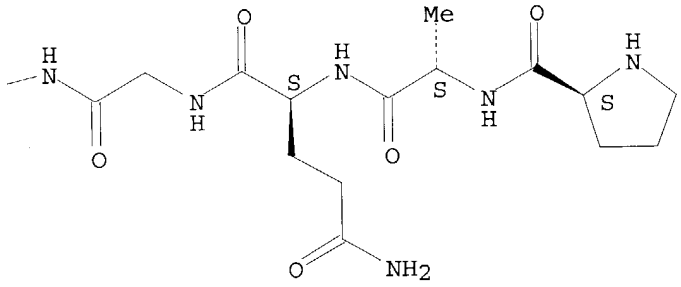

RN 400786-45-0 HCAPLUS
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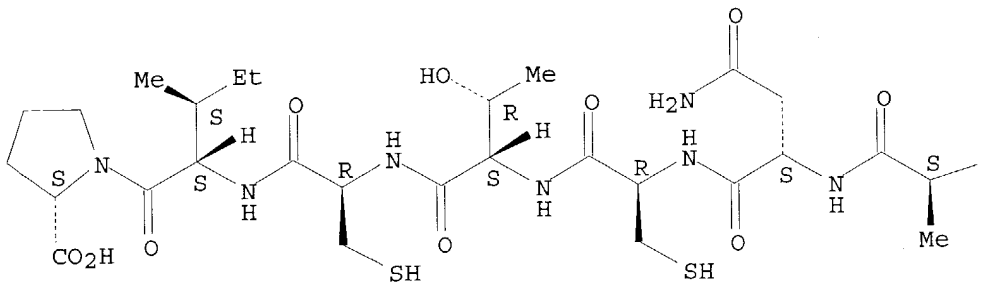
Absolute stereochemistry.

PAGE 1-A



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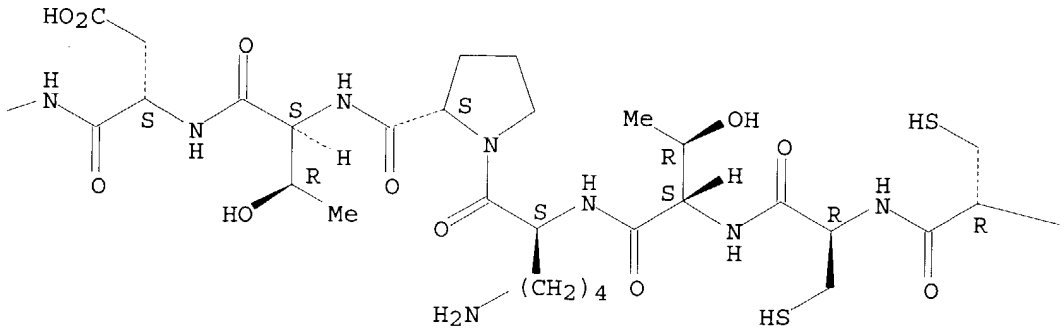

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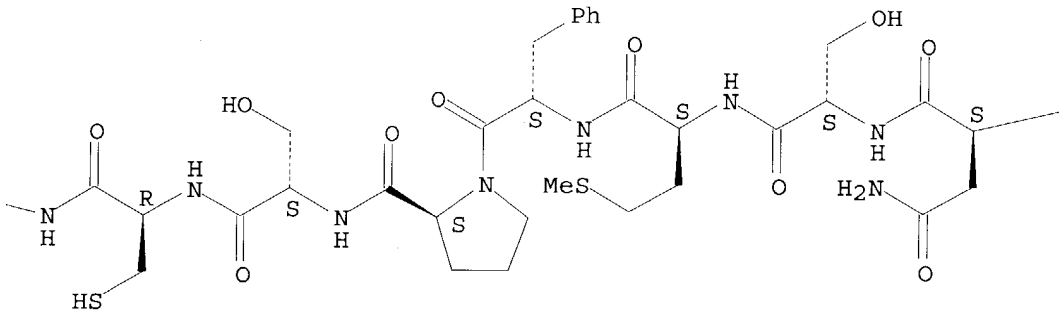

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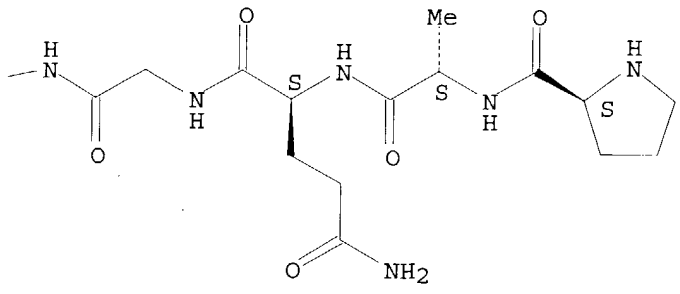
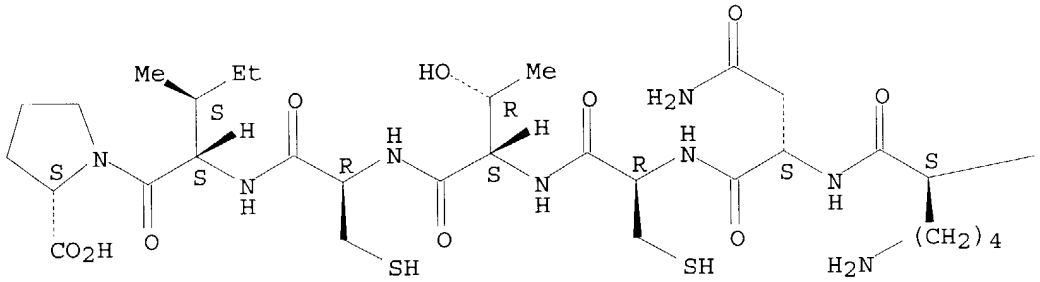


RN 400786-46-1 HCAPLUS
CN L-Proline, L-prolyl-L-alanyl-L-glutaminylglycyl-L-asparaginyl-L-seryl-L-methionyl-L-phenylalanyl-L-prolyl-L-seryl-L-cysteinyl-L-cysteinyl-L-cysteinyl-L-threonyl-L-lysyl-L-prolyl-L-threonyl-L-α-aspartyl-L-lysyl-L-asparaginyl-L-cysteinyl-L-threonyl-L-cysteinyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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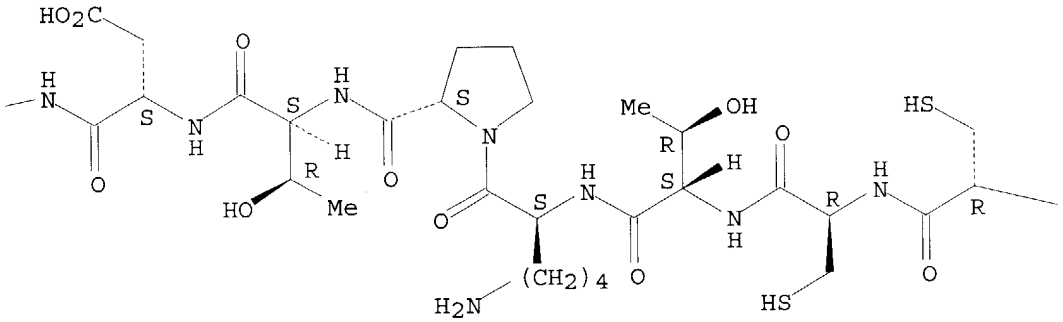

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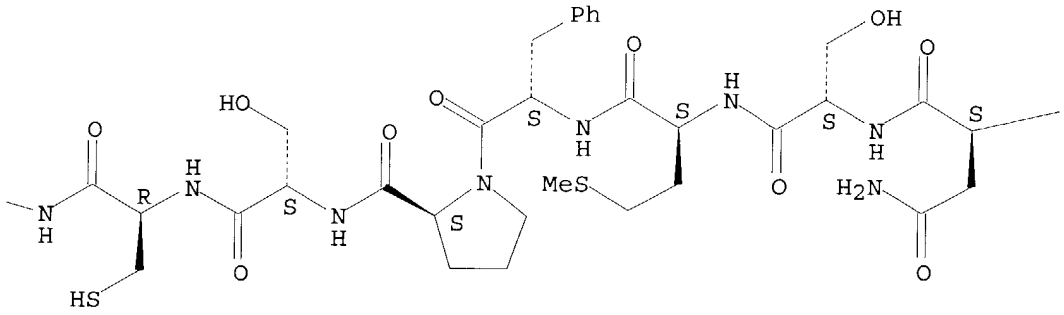

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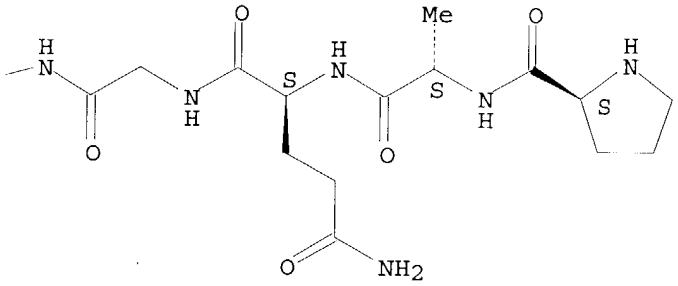
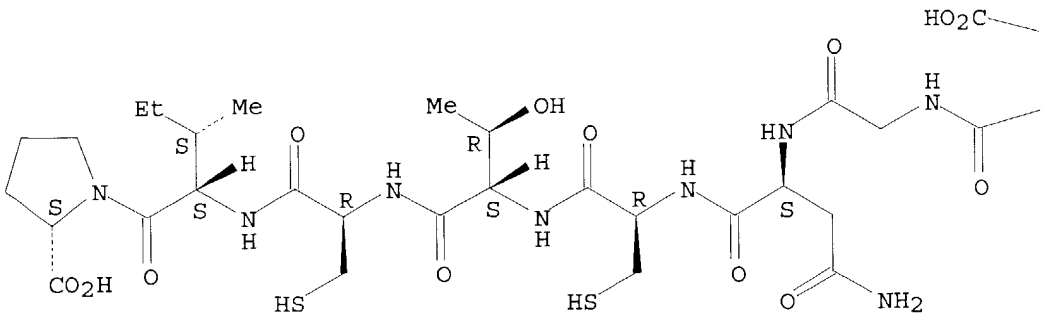


RN 400786-52-9 HCAPLUS
CN L-Proline, L-prolyl-L-alanyl-L-glutaminylglycyl-L-threonyl-L-seryl-L-methionyl-L-phenylalanyl-L-prolyl-L-seryl-L-cysteinyl-L-cysteinyl-L-cysteinyl-L-threonyl-L-lysyl-L-prolyl-L-seryl-L-α-aspartylglycyl-L-asparaginyl-L-cysteinyl-L-threonyl-L-cysteinyl-L-isoleucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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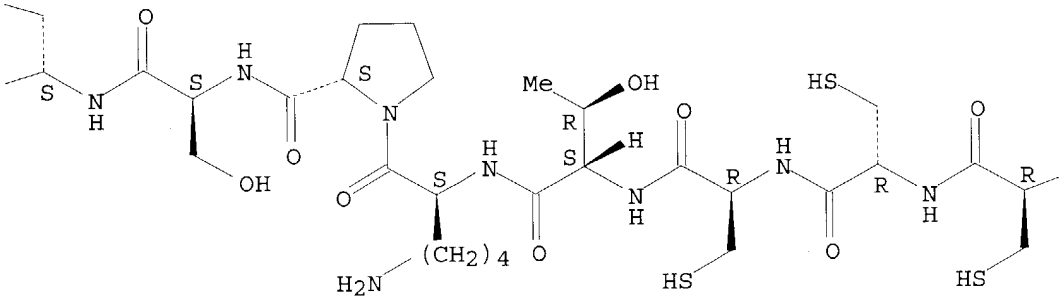

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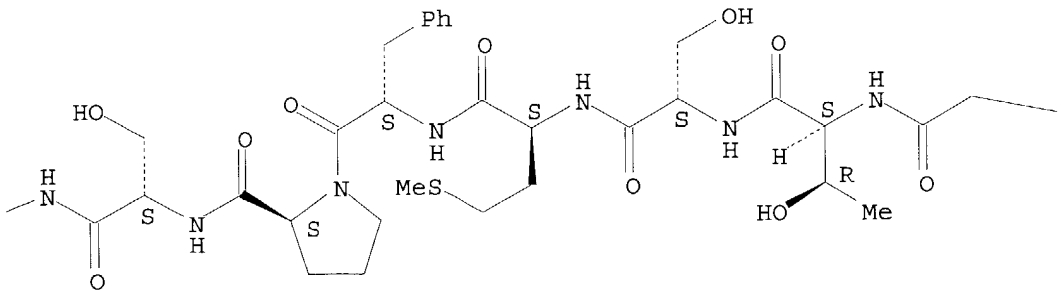
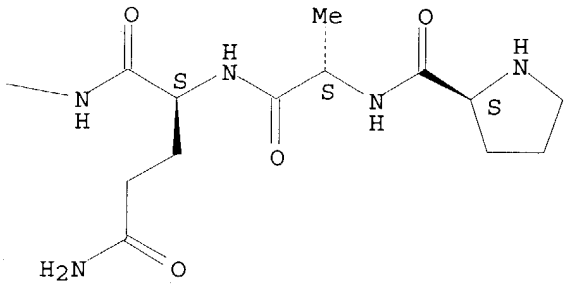




AB The G145R mutant of the small S-protein is a major escape mutant of hepatitis B virus observed in natural infection, after immunization and HBIG therapy. In a previous study we found that plasma-derived and recombinant DNA-derived vaccine HBsAg reacted differently with monoclonal antibodies sensitive for the G145R change. In the present study we investigated the binding of polyclonal anti-HBs obtained after immunization with plasma vaccine and recombinant DNA vaccine to synthetic peptides (adw2, adr) and rHBsAg (HepG2) (ayw3; wild type and a 145R mutant). Anti-HBs binding to synthetic peptides (25-mers, 7aa overlap) from the "a"-loop was significantly reduced by the G145R substitution and by changing the amino acid sequence from adw2 into adr. With mutant G145R rHBsAg the inhibitory activity of vaccine anti-HBs was decreased compared to rHBsAg wild type. In general only minor differences were observed between plasma vaccine and recombinant DNA vaccine related antibody responses. However, the individual heterogeneity in epitope specific reactivity with its possible consequences for protection (against escape mutants) is not reflected in an anti-HBs titer by standard anti-HBs assays. The presented differentiation in anti-HBs response after immunization may deliver new tools for evaluation of future vaccines.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:277125 USPATFULL

TITLE: Polymeric conjugates of antitumor agents

INVENTOR(S): Suarato, Antonio, Milan, ITALY
Angelucci, Francesco, Milan, ITALY
Caruso, Michele, Milan, ITALY
Scolaro, Alessandro, Milan, ITALY
Volpi, Daniele, Cornaredo, ITALY
Zamai, Moreno, Milan, ITALY

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003195152	A1	20031016	
APPLICATION INFO.:	US 2003-333619	A1	20030410	(10)
	WO 2001-EP7883		20010709	

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-182402	20000725

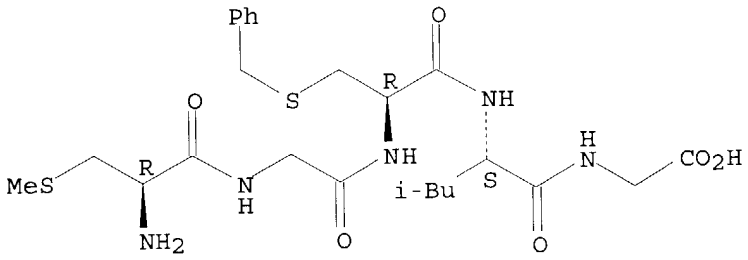
DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER

DRIVE, SUITE 3200, CHICAGO, IL, 60606
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
LINE COUNT: 846
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **393780-78-4D**, polymeric conjugates
(polymeric conjugates of antitumor agents)
RN 393780-78-4 USPATFULL
CN Glycine, S-methyl-L-cysteinylglycyl-S-(phenylmethyl)-L-cysteinyl-L-leucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB Water soluble polymeric conjugates of antitumor agents of formula (A) P-[W.sub.2].sub.p-S.sub.0-[W.sub.1].sub.r-[D] wherein: P is a water soluble polymer; [W.sub.1] is a residue of formula --HN-Z.sub.1-CO-- in which Z.sub.1 represents a linear or branched C2-C12 alkylene chain or the residue of formula --C6HC--CH2--O--; [W.sub.2] is a residue of formula --HN-Z2-CO-- in which Z2 represents a C2-C12 linear or branched alkylene chain; p and r are 0 or 1; S0 is a peptide that selectively is cleaved at the tumor site mainly by the action of the matrix metalloproteinases gelatinase; [D] is the residue of an antitumor agent. The conjugates possess enhanced antitumor activity and decreased toxicity with respect to the free drug. A process for their preparation, useful intermediates and pharmaceutical compositions containing them are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

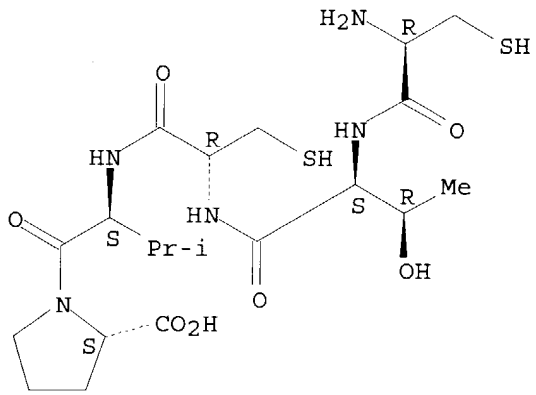
L34 ANSWER 5 OF 5 USPATFULL on STN
ACCESSION NUMBER: 2003:106895 USPATFULL
TITLE: Design and use of advanced zinc chelating peptides to regulate matrix metalloproteinases
INVENTOR(S): Quirk, Stephen, Alpharetta, GA, UNITED STATES
Tyrrell, David John, Appleton, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003073808	A1	20030417
APPLICATION INFO.:	US 2000-753139	A1	20001229 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JOHN S. PRATT, KILPATRICK STOCKTON LLP, 1100 PEACHTREE, SUITE 2800, ATLANTA, GA, 30309
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 856
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

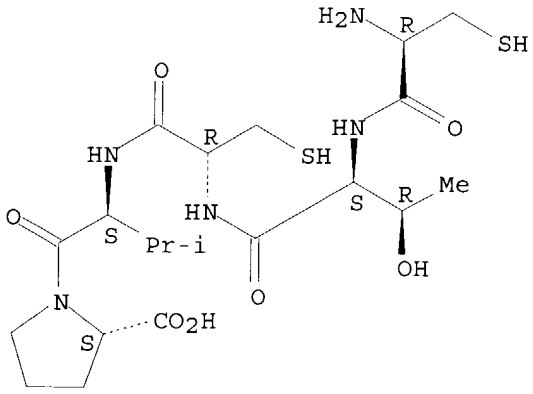
IT **441283-28-9**
(unclaimed sequence; design and use of advanced zinc-chelating peptide-chelator conjugates to regulate matrix metalloproteinases, and therapeutic use)
RN 441283-28-9 USPATFULL
CN L-Proline, L-cysteinyl-L-threonyl-L-cysteinyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



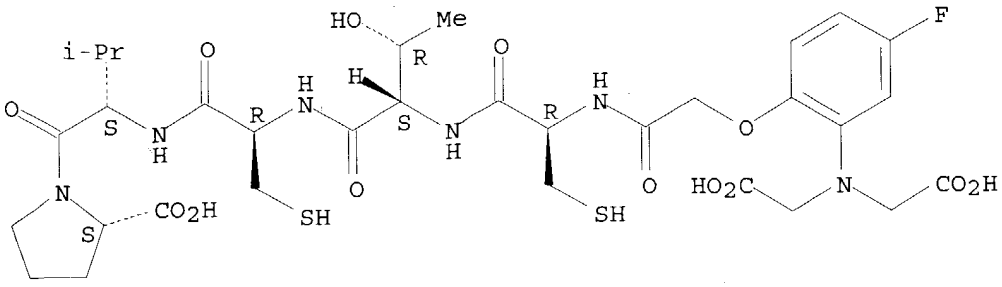
IT **441283-28-9D**, chelating agent conjugates
(zinc-chelating peptide-chelator conjugates for matrix metalloproteinase regulation, and therapeutic use)
RN 441283-28-9 USPATFULL
CN L-Proline, L-cysteinyl-L-threonyl-L-cysteinyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **441283-34-7P**
(zinc-chelating peptide-chelator conjugates for matrix metalloproteinase regulation, and therapeutic use)
RN 441283-34-7 USPATFULL
CN L-Proline, N-[[2-[bis(carboxymethyl)amino]-4-fluorophenoxy]acetyl]-L-cysteinyl-L-threonyl-L-cysteinyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB The present invention relates to MMP regulators that comprise new synthetic peptides, that comprise amino acid sequences structurally similar to those of MMP binding region of TIMPs, coupled to zinc chelators. The invention also relates to methods for making these MMP regulators and their use for the treatment of chronic and acute wounds and for the treatment of angiogenesis-associated diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

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=> fil hcaplus

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FILE COVERS 1907 - 30 Jul 2004  VOL 141 ISS 6
FILE LAST UPDATED: 29 Jul 2004  (20040729/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> fil biosis

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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 29 July 2004 (20040729/ED)

FILE RELOADED: 19 October 2003.

=> FIL STNGUIDE

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 23, 2004 (20040723/UP).

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L36          232 SEA FILE=HCAPLUS ABB=ON  PLU=ON  TYRRELL, D?/AU
L37          319 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L35 OR L36)
L39           30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 AND (?KIMBERLY?)/PA,CS,SO

L40            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND (?CHELAT? OR ?METALLOP
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L41           94 SEA FILE=BIOSIS ABB=ON  PLU=ON  QUIRK, S?/AU
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L42          503 SEA FILE=BIOSIS ABB=ON  PLU=ON  TYRRELL, D?/AU
L43          597 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L41 OR L42)
L45            5 SEA FILE=BIOSIS ABB=ON  PLU=ON  L43 AND (?CHELAT? OR ?METALLOPR
               OTEINAS?)


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COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)
PROCESSING COMPLETED FOR L40
PROCESSING COMPLETED FOR L45
L46           11 DUP REM L40 L45 (0 DUPLICATES REMOVED)
                 ANSWERS '1-6' FROM FILE HCAPLUS
                 ANSWERS '7-11' FROM FILE BIOSIS

=> d ibib abs

L46  ANSWER 1 OF 11  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2003:173742  HCAPLUS
DOCUMENT NUMBER:          138:226726
TITLE:                    Anti-cancer and wound healing compounds
INVENTOR(S):              Quirk, Stephen; Weart, Ilona F.
PATENT ASSIGNEE(S):       Kimberly-Clark Worldwide, Inc., USA
SOURCE:                   PCT Int. Appl., 103 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   5
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
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     WO 2003018748      A2   20030306      WO 2002-US26319  20020815
     WO 2003018748      A3   20040527
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
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             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
     US 2004127420      A1   20040701      US 2001-32376    20011221
     US 2003148959      A1   20030807      US 2002-153185   20020521
PRIORITY APPLN. INFO.:                    US 2001-312726P  P  20010816
                                          US 2001-32376    A  20011221
                                          US 2002-153185   A  20020521

OTHER SOURCE(S):          MARPAT 138:226726
AB   The invention provides inhibitors of matrix metalloproteinase
     that are useful as anti-tumor agents and for treating wounds.  The
     inhibitors are peptides having sequences related to cleavage regions of
```

the proenzyme forms of matrix **metalloproteinases.** The peptide inhibitors of the invention can be formulated into therapeutic compns., lotions, creams, skin covering, and wound dressings that inhibit expression of vascular endothelial growth factor and encourage healing.

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YOU HAVE REQUESTED DATA FROM 10 ANSWERS - CONTINUE? Y/(N):y

L46 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:154595 HCAPLUS
DOCUMENT NUMBER: 138:183116
TITLE: Peptide inhibitors of matrix **metalloproteinases** and their use in skin treatment and wound healing
INVENTOR(S): **Quirk, Stephen**; Malik, Sohail; Villanueva, Julie M.
PATENT ASSIGNEE(S): **Kimberly-Clark Worldwide, Inc., USA**
SOURCE: PCT Int. Appl., 120 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003016520	A1	20030227	WO 2002-US26198	20020815
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004127420	A1	20040701	US 2001-32376	20011221
US 2003148959	A1	20030807	US 2002-153185	20020521
EP 1423515	A1	20040602	EP 2002-759388	20020815
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.:
US 2001-312726P P 20010816
US 2001-32376 A 20011221
US 2002-153185 A 20020521
WO 2002-US26198 W 20020815

AB The invention provides inhibitors of matrix **metalloproteinases** that are useful for encouraging the development of healthy skin and for treating wounds. The inhibitors are peptides having sequences related to cleavage regions of the proenzyme forms of matrix **metalloproteinases.** The peptide inhibitors of the invention can be formulated into therapeutic compns., lotions, creams, skin covering and wound dressings that facilitate healing and healthy skin development, discourage scarring and wrinkling and ameliorate the effects of healing. Thus, a 19-residue peptide comprising the cleavage/activation site of the MMP-2 proenzyme was prepared This peptide inhibited many MMP's with Ki 3.1-41.1 μM. The peptide stimulated keratinocyte and fibroblast growth, stimulated fibroblast migration, and stimulated collagen production by

fibroblasts.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:696524 HCAPLUS
DOCUMENT NUMBER: 139:226471
TITLE: Peptide inhibitors of matrix **metalloproteinases** as skin anti-aging and wound healing compounds
INVENTOR(S): **Quirk, Stephen**; Malik, Sohail; Villanueva, Julie M.
PATENT ASSIGNEE(S): **Kimberly-Clark Worldwide, Inc., USA**
SOURCE: U.S. Pat. Appl. Publ., 62 pp., Cont.-in-part of U.S. Ser. No. 153,185.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003166567	A1	20030904	US 2002-219561	20020815
US 2004127420	A1	20040701	US 2001-32376	20011221
US 2003148959	A1	20030807	US 2002-153185	20020521
PRIORITY APPLN. INFO.:			US 2001-312726P P	20010816
			US 2001-32376 A2	20011221
			US 2002-153185 A2	20020521

AB The invention provides inhibitors of matrix **metalloproteinases** that are useful for encouraging the development of healthy skin and for treating wounds. The inhibitors are peptides having sequences related to the cleavage region of the proenzyme forms of matrix **metalloproteinases.** The peptide inhibitors of the invention can be formulated into therapeutic compns., lotions, creams, skin covering and wound dressings that facilitate healing and healthy skin development, discourage scarring and wrinkling and ameliorate the effects of healing. Examples of the invention show inhibition of matrix **metalloproteinase**-9 activity by 9-mer, 10-mer, and 19-mer cleavage domain peptides. Inhibitor consts. (Ki) ranged from 45.2-327.7 μM using FRET-peptide and fluoresceinated collagen substrates. A 19-mer peptide, which was derived from the MMP-2 cleavage domain region, showed activity in a variety of other assays, including wound healing in db/db diabetic mice, stimulation of proliferation of normal human dermal fibroblasts and keratinocytes, and increased collagen production in human skin fibroblasts.

L46 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:396442 HCAPLUS
DOCUMENT NUMBER: 139:12251
TITLE: Anti-cancer and wound healing compounds comprising peptide inhibitors of matrix **metalloproteinase**
INVENTOR(S): **Quirk, Stephen**; Weart, Ilona F.
PATENT ASSIGNEE(S): **Kimberly-Clark Worldwide, Inc., USA**
SOURCE: U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of U.S. Ser. No. 153,185.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003096757	A1	20030522	US 2002-219329	20020815
US 2004127420	A1	20040701	US 2001-32376	20011221
US 2003148959	A1	20030807	US 2002-153185	20020521

PRIORITY APPLN. INFO.: US 2001-312726P P 20010816
US 2001-32376 A2 20011221
US 2002-153185 A2 20020521

AB The invention provides inhibitors of matrix **metalloproteinases** that are useful as anti-tumor agents and for treating wounds. The inhibitors are peptides having sequences related to cleavage regions of the proenzyme forms of matrix **metalloproteinases.** The peptide inhibitors of the invention can be formulated into therapeutic compns., lotions, creams, skin covering and wound dressings that inhibit expression of vascular endothelial growth factor and encourage healing. Thus, a 19-residue peptide comprising the cleavage/activation site of the MMP-2 proenzyme was prepd and its MMP-inhibiting activity was demonstrated. The peptide stimulated keratinocyte and fibroblast growth, stimulated fibroblast migration, and stimulated collagen production by fibroblasts. Compns. for inhibiting expression of vascular endothelial growth factor are claimed comprising an effective amount of a peptide of formula I, II, III, or IV and a pharmaceutically acceptable carrier: Xaa1-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6 Xaa7-Xaa8-Xaa9 (I) wherein: Xaa1, Xaa4, and Xaa6 are sep. each apolar amino acids; Xaa2 is a basic amino acid; Xaa3 is a cysteine-like amino acid; Xaa5 is a polar or aliphatic amino acid; Xaa7 is an acidic amino acid; Xaa8 is an aliphatic or polar amino acid; Xaa9 is an aliphatic, apolar or basic amino acid.

L46 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:521516 HCAPLUS
DOCUMENT NUMBER: 137:103919
TITLE: Design and use of advanced zinc-**chelating** peptide-**chelator** conjugates to regulate matrix **metalloproteinases**, and therapeutic use
INVENTOR(S): **Quirk, Stephen; Tyrrell, David John**
PATENT ASSIGNEE(S): **Kimberly-Clark Worldwide, Inc., USA**
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053173	A2	20020711	WO 2001-US49276	20011221
WO 2002053173	A3	20030410		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003073808 A1 20030417 US 2000-753139 20001229

EP 1348024 A2 20031001 EP 2001-991359 20011221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 2000-753139 A 20001229
WO 2001-US49276 W 20011221

AB The invention discloses MMP regulators that comprise synthetic peptides having amino acid sequences structurally similar to those of MMP binding region of TIMPs, coupled to zinc **chelators.** The invention also discloses methods for making these MMP regulators and their use for the treatment of chronic and acute wounds and for the treatment of angiogenesis-associated diseases.

L46 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:521514 HCAPLUS
DOCUMENT NUMBER: 137:73289
TITLE: Use of a matrix **metalloproteinase** peptide substrate to lower the rate of extracellular matrix turnover, and use in wound healing
INVENTOR(S): McGrath, Kevin P.; **Quirk, Stephen**
PATENT ASSIGNEE(S): **Kimberly-Clark Worldwide, Inc., USA**
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053172	A2	20020711	WO 2001-US49272	20011221
WO 2002053172	A3	20040226		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-753078 A 20001229

AB The invention provides peptides and methods for enhancing wound healing, especially chronic wounds. The peptides of the invention act as substrates for proteinases found in wounds, e.g. matrix **metalloproteinases** and human neutrophil elastase. Tailoring of the peptide sequences provides control of the healing process. The invention also provides methods of treating wounds and inhibiting degradation of collagen and other proteins found in wounds.

L46 ANSWER 7 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2003:389972 BIOSIS
DOCUMENT NUMBER: PREV200300389972
TITLE: Matrix **metalloproteinase** inhibitors.
AUTHOR(S): **Quirk, Stephen** [Inventor, Reprint Author]
CORPORATE SOURCE: Alpharetta, GA, USA
ASSIGNEE: Kimberly-Clark Worldwide, Inc.
PATENT INFORMATION: US 6600057 July 29, 2003
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (July 29 2003) Vol. 1272, No. 5. http://www.uspto.gov/web/menu/patdata.html. e-file.

ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Aug 2003
Last Updated on STN: 20 Aug 2003

AB The present invention provides compounds that are effective in treating disorders caused by the enzymatic activity of matrix **metalloproteinases.** These disorders include, but are not limited to, rheumatoid arthritis, osteoarthritis, periodontal disease, aberrant angiogenesis, tumor invasion and metastasis, corneal ulceration, and in complications of diabetes. The present invention is also is useful for treating wounds.

L46 ANSWER 8 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1998:98359 BIOSIS
DOCUMENT NUMBER: PREV199800098359
TITLE: Matrix **metalloproteinase** inhibitors: A structure-activity study.
AUTHOR(S): Levy, Daniel E. [Reprint author]; Lapierre, France; Liang, Weisheng; Ye, Wenqing; Lange, Christopher W.; Li, Xiaoyuan; Grobelny, Damian; Casabonne, Marie; **Tyrrell, David**; Holme, Kevin; Nadzan, Alex; Galardy, Richard E.
CORPORATE SOURCE: 3918 Christian Drive, Belmont, CA 94002, USA
SOURCE: Journal of Medicinal Chemistry, (Jan. 15, 1998) Vol. 41, No. 2, pp. 199-223. print.
CODEN: JMCMAR. ISSN: 0022-2623.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Feb 1998
Last Updated on STN: 25 Feb 1998

AB Modifications around the dipeptide-mimetic core of a hydroxamic acid based matrix **metalloproteinase** inhibitor were studied. These variations incorporated a variety of natural, unnatural, and synthetic amino acids in addition to modifications of the P1' and P3' substituents. The results of this study indicate the following structural requirements: (1) Two key hydrogen bonds must be present between the enzyme and potent substrates. (2) Potent inhibitors must possess strong zinc-binding functionalities. (3) The potential importance of the hydrophobic group at position R3 as illustrated by its ability to impart greater relative potency against stromelysin when larger hydrophobic groups are used. (4) Requirements surrounding the nature of the amino acid appear to be more restrictive for stromelysin than for neutrophil collagenase, 72 kDa gelatinase, and 92 kDa gelatinase. These requirements may involve planar fused-ring aryl systems and possibly hydrogen-bonding capabilities.

L46 ANSWER 9 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1996:31227 BIOSIS
DOCUMENT NUMBER: PREV199698603362
TITLE: Role of the conserved histidine and aspartic acid residues in activity and stabilization of human gelatinase B: An example of matrix **metalloproteinases.**
AUTHOR(S): Pourmotabbed, Tayebeh [Reprint author]; Aelion, Jacob A.; **Tyrrell, David**; Hasty, Karen A.; Bu, Chun Hui; Mainardi, Carlo L.
CORPORATE SOURCE: Dep. Biochem., Univ. Tenn., Memphis, TN 38163, USA
SOURCE: Journal of Protein Chemistry, (1995) Vol. 14, No. 7, pp. 527-535.
CODEN: JPCHD2. ISSN: 0277-8033.
DOCUMENT TYPE: Article
LANGUAGE: English

ENTRY DATE: Entered STN: 26 Jan 1996
Last Updated on STN: 27 Jan 1996

AB Gelatinase B (MMP-9), a member of the matrix **metalloproteinase** family, is a zinc- and calcium-dependent endopeptidase that is known to play a role in tumor cell invasion and in destruction of cartilage in arthritis. It contains a conserved sequence 400His-(X)-3-His-(X)-28Asp-Asp-(X)-2-14-36Gly, the function of which is under investigation. The conserved Asp-432 and Asp-433 residues were individually replaced with Gly; these substitutions reduced the gelatinolytic activity of the enzyme to 23% and 0%, respectively. Replacing Asp-433 with Glu, however, decreased the gelatinolytic activity of the enzyme by 93% and proteolytic activity of the enzyme for the Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH-2 substrate by 79%. The wild-type and D432G and D433E mutant enzymes had similar K-m values for the synthetic substrate and similar K-i values for the competitive inhibitor, GM6001. The k-cat/K-m values for D432G and D433E mutant enzymes, however, were reduced by a factor of apprx 4 and their K-a-Ca values were increased by four- and six-fold, respectively. The significance of His-400 in the activity of the enzyme was assessed by replacing this residue with Ala and Phe. Both H400A and H400F mutants were inactive toward gelatin substrate. These data demonstrate that Asp-432, Asp-433, and His-400 residues are important for the activity of gelatinase B. His-400 may act as a zinc-binding ligand similar to the His-197 in interstitial collagenase (MMP-7) and Asp-432 and Asp-433 residues are probably involved in stabilization of the active site of the enzyme. The His-400 and Asp-433 residues are conserved in all members of the MMP family. Therefore, our results are relevant to this group as a whole.

L46 ANSWER 10 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1995:97275 BIOSIS
DOCUMENT NUMBER: PREV199598111575
TITLE: Low molecular weight inhibitors in corneal ulceration.
AUTHOR(S): Galardy, Richard E. [Reprint author]; Cassabonne, Marie E.; Giese, Carlanne; Gilbert, James H.; Lapierre, France; Lopez, Henry; Schaefer, Mary E.; Stack, Robert; Sullivan, Michael; Summers, Brent; Tressler, Rob; **Tyrrell, Dave**; Wee, Jennifer; Allen, Scott D.; Castellot, John J.; Barletta, John P.; Schultz, Gregory S.; Fernandez, Leonardo A.; Fisher, Susan; Cui, Tian-Yi; Foellmer, Harald G.; Grobelny, Damian; Holleran, Walter M.
CORPORATE SOURCE: Glycomed Incorporated, 860 Atlantic Avenue, Alameda, CA 94501, USA
SOURCE: Greenwald, R. A. [Editor]; Golub, L. M. [Editor]. Ann. N. Y. Acad. Sci., (1994) pp. 315-323. Annals of the New York Academy of Sciences; Inhibition of matrix metalloproteinases: Therapeutic potential.
Publisher: New York Academy of Sciences, 2 East 63rd Street, New York, New York 10021, USA. Series: Annals of the New York Academy of Sciences.
Meeting Info.: Conference. Tampa, Florida, USA. January 19-22, 1994.
CODEN: ANYAA9. ISSN: 0077-8923. ISBN: 0-89766-900-2 (paper), 0-89766-899-5 (cloth).
DOCUMENT TYPE: Book
Conference; (Meeting)
Book; (Book Chapter)
Conference; (Meeting Paper)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Mar 1995
Last Updated on STN: 1 Mar 1995

L46 ANSWER 11 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1977:248398 BIOSIS
DOCUMENT NUMBER: PREV197764070762; BA64:70762
TITLE: NEW ASPECTS OF LIPOSOMES.
AUTHOR(S): **TYRRELL D A**; HEATH T D; COLLEY C M; RYMAN B E
SOURCE: Biochimica et Biophysica Acta, (1976) Vol. 457, No. 3-4, pp. 259-302.
CODEN: BBACAQ. ISSN: 0006-3002.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
AB Until about 6 years ago liposomes were mainly used as a research tool in the membrane field to attempt to understand the properties of the lipid bilayers believed to form part of the structure of biological membranes. While this aspect of liposome research continues to produce important information, interests in the liposome field have now diversified and include direction towards the possible use of lipid vesicles as carriers of molecules of therapeutic interest into cells. This review discusses the potential applications of liposomes in such areas as carriers for **chelating** agents, insulin and other drugs; as enzyme carriers for the therapy of storage diseases; in cancer chemotherapy; and as adjuvants in immunology.

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